

REMARKS

Favorable reconsideration of the present application is respectfully requested.

New dependent Claim 6 is based on original Claim 2 but depends from Claim 5.

Claims 1, 2 and 5 have now been rejected under 35 U.S.C. § 103 as being obvious over Clark in view of newly cited Japanese patent publication 2001-158951. In response to the argument presented in the response to the first Office Action, the new ground of rejection relies upon JP '951 to suggest modifying Clark to maintain the temperature of the casting between the high pressure treatment and any solution treatment, quenching and aging. This rejection is respectfully traversed.

Clark is directed to a method for HIP treatment of centrifugally cast aluminum alloy parts to remove porosity, followed by high temperature solution treatment of the parts. As the Examiner has recognized, Clark fails to evidence a recognition that the pressure reduction at the end of the HIP treatment will also cool the casting. Clark therefore fails to describe any steps to counter this cooling so as to maintain the temperature of the casting between the HIP treatment and the subsequent solution treatment.

JP '951 discloses a controlled precipitation hardening treatment of an extruded aluminum alloy in which the alloy is maintained at a preset temperature of 510-560°C immediately after extrusion of the alloy and before cooling to the ageing temperature. It is respectfully submitted that this teaching would not have motivated one skilled in the art to have taken steps for maintaining the temperature of the casting in Clark between the HIP treatment and the subsequent solution treatment, for a number of reasons.

First, JP '951 is not analogous art with respect to Clark. Teachings to modify a prior art reference can only be drawn from analogous prior art, i.e., prior art in the same field of endeavor or that which is reasonably pertinent to the problem with which the inventor is concerned. MPEP § 2141.01(a). As previously explained, a particular problem in an HIP

treatment is cooling due to pressure reduction at the end of the treatment, which cooling must be countered to maintain the temperature of the HIP'ed article. Since JP '951 does not involve an HIP treatment or a corresponding pressure reduction, it is not reasonably pertinent to this problem, is not analogous prior art, and could not teach one skilled in the art to counter such cooling accompanying pressure reduction in an HIP treatment.

Second, JP '951 is not directed to a casting or an HIP treatment of a casting. Instead it simply teaches maintaining an extruded material at a preset temperature after its extrusion in order to strengthen the extruded material. There is no reason why this would motivate one skilled in the art to maintain the temperature of a casting following an unrelated HIP treatment of the casting.

Finally, the motivation for modifying Clark which is set forth in the Office Action – enhancing strength – is taught in JP '951 to result from maintaining a preset temperature immediately after *extrusion* of an extrudate. Since the article in Clark is cast and not extruded, this purported motivation would not apply to Clark. The claims thus clearly define over this prior art.

Claims 3 and 4 further recite that the casting is accommodated in a heat insulating structure or covered with a heat resistant porous heat insulator during the high temperature/high pressure treatment and the solution treatment. Claims 3 and 4 were rejected under 35 U.S.C. § 103 as being obvious over Clark in view of JP '951 and the ASM Handbook article which describes an autoclaving furnace. According to the Office Action, the autoclave furnace chamber of the ASM Handbook “is held to meet the instant limitations” including a resistant porous heat insulator. However the Office Action does not provide a basis in fact or technical reasoning to reasonably support the conclusion that the autoclave furnace chamber of the ASM Handbook is necessarily porous, as is required for a rejection

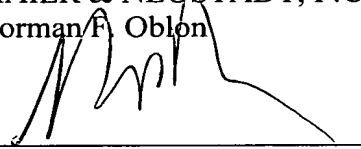
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based on inherency. MPEP § 2112(IV). It is therefore respectfully submitted that the Office Action fails to set forth a prima facie case of obviousness of Claims 3 and 4.

Applicants therefore believe that the present application is in a condition for allowance and respectfully solicit an early notice of allowability.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read 'Robert T. Pous', is written over a horizontal line.

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